ABSTRACT

A fine channel device for performing a chemical treatment or for producing fine particles, ~~having the degree of integration of fine particles two-dimensionally and three-dimensionally and~~ capable of supplying a liquid to ~~all of~~ the fine channels evenly and producing products in a large quantity[[,]] is provided~~, and a small-sized chemical plant capable of achieving a production quantity comparable to a conventional large-scale chemical plant comprising the fine channel device as a fundamental constituent factor, is provided~~. ~~A~~ The fine channel device ~~introducing at least one fluid and having fine channels for performing a chemical treatment for the fluid introduced and for producing particles from the fluid introduced, the fine channel device having~~ includes a storage space ~~for temporarily storing the introduced fluid~~ having a ~~shape of a~~ circular or [[a]] polygonal recess for temporarily storing fluid, and supply channels ~~of a linear and/or a curved shape~~ formed in a radial direction from the storage space~~, wherein the fine channels are communicated with each of the fine channels of the fine channel substrate having the fine channels, is used~~. A small ~~sized desksize~~ chemical plant ~~comprising~~ includes a plurality of the fine channel devices as fundamental constituents~~, means for supplying~~ and a mechanism to supply at least one fluid ~~to the plurality of fine channel devices, and means for recovering~~ and a mechanism to recover products produced ~~by performing a chemical treatment of above fluid or particles produced from the above fluid in the plurality of fine channel devices, is used~~.